Designation: E 2299 – 03

Standard Guide for Sensory Evaluation of Products by Children[1]

This standard is issued under the fixed designation E 2299; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This standard guide provides a framework for understanding the issues relating to conducting sensory and market research studies with children. It recommends and provides examples for developing ethical, safe, and valid testing methods. It focuses specifically on the concerns relevant to testing with children from birth through preadolescence. The guide assumes that teens older than 15 years of age are generally capable of performing sensory tests like adults, and therefore, all standard procedures used with adult subjects apply. The one exception, however, is legal consent where parental permission should be obtained for anyone under 18 years of age.

1.2 The guide will take into account the wide range of children's physical, emotional, and cognitive levels of development. It will prove useful for developing tasks that are understandable to children. It recommends alternative modes for children to communicate their opinions or perceptions back to the researcher, such as appropriate scales and measures.

1.3 The ethical standard presented in this document should be viewed as a minimum requirement for testing with minors. The safety and protection of children as respondents, as well as an attitude of respect for the value of their input should be of primary concern to the researcher.

1.4 The considerations raised in this document may also be useful when testing with the elderly or with adults who have developmental handicaps.

1.5 This document is not intended to be a complete description of reliable sensory testing techniques and methodologies. It focuses instead on special considerations for the specific application of sensory techniques when testing with children. It assumes knowledge of basic sensory and statistical analysis techniques.

2. Referenced Documents

2.1 *ASTM Standards:*

E 253 Terminology Relating to Sensory Evaluation of Materials and Products[2]

E 1958 Guide for Sensory Claim Substantiation[2]

2.2 *Other Publications*

Manual 26 Sensory Testing Methods: Second Edition[3]

STP 758 Guidelines for the Selection and Training of Sensory Panel Members[3]

3. Summary of Guide—Specific Applications for Testing With Children

3.1 The primary use of children in sensory studies is to measure the acceptability of foods, beverages, pharmaceutical colors and flavors, and other products designed to be marketed to, consumed by, or used by children.

3.2 In this sense, they answer many of the same questions posed by effective sensory tests with adults. Children are used to measure overall acceptance, liking, or preference between samples. The resulting information can be used to aid in formulation changes or to choose between alternative products.

3.3 Sensory testing with children can also be used to identify unique characteristics or functions of products, such as the effectiveness of childproof safety caps. Other applications include advertising research or identification of unfilled needs or wants as part of the product development process.

3.4 Finally, some organizations are using children for basic research into the effectiveness of different scaling methods or sensory testing methodologies with children of varying ages.

4. Significance and Use

4.1 It is necessary and useful to test with children because they represent the real end-users for many products. Some products are developed specifically for children, and some are dual-purpose products that are intended for adults and children. Examples include: baby foods, diapers, ready-to-eat cereal, juices, food or lunch kits, candy, toys, vitamins and other pharmaceuticals, music and videos, interactive learning tools, and packaging.

4.2 Children have influence over their parents' purchase decisions. They also have more money than in the past, and are responsible for more of their own purchase decisions at an earlier age. As a result, many manufacturers advertise specifically to children.

4.3 Creating a product for children requires input from children because their wants and needs differ from those of

[1] This guide is under the jurisdiction of ASTM Committee E18 on Sensory Evaluation of Materials and Products and is the direct responsibility of Subcommittee E18.05 on Sensory Applications—General.

Current edition approved June 10, 2003. Published July 2003.

[2] *Annual Book of ASTM Standards*, Vol 15.08.

[3] Available from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428, website: www.astm.org.

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